

## **SENSOR HEAD FOR USE WITH IMPLANTABLE DEVICES**

### **ABSTRACT OF THE DISCLOSURE**

[0121] The present invention provides a sensor head for use in an implantable device that measures the concentration of an analyte in a biological fluid which includes: a non-conductive body; a working electrode, a reference electrode and a counter electrode, wherein the electrodes pass through the non-conductive body forming an electrochemically reactive surface at one location on the body and forming an electronic connection at another location on the body, further wherein the electrochemically reactive surface of the counter electrode is greater than the surface area of the working electrode; and a multi-region membrane affixed to the nonconductive body and covering the working electrode, reference electrode and counter electrode. In addition, the present invention provides an implantable device including at least one of the sensor heads of the invention and methods of monitoring glucose levels in a host utilizing the implantable device of the invention.